

Supplementary Appendix for “Can Neighbourhoods Change the Decisions of Youth on the Margins of University Participation?”

Kelly Foley *
Department of Economics
Copenhagen Business School

September 2010

*Correspondence: Department of Economics, Copenhagen Business School, Porclænsøen 16A, 1, Frederiksberg 2000, Denmark, kf.eco@cbs.dk. The statistical analysis in this paper was produced from Statistics Canada microdata. The interpretation and opinions expressed are my own and do not represent those of Statistics Canada. I would like to thank David Green, Thomas Lemieux, Siwan Anderson, Nicole Fortin, Christine Neill, Werner Antweiler, two anonymous referees and participants of the UBC micro-empirical seminar series for helpful comments.

A Data Appendix

The paper, *Can Neighbourhoods Change the Decisions of Youth on the Margins of University Participation?*, uses data from the Youth in Transition Survey (YITS). The YITS is a longitudinal survey of Canadian youth undertaken by Statistics Canada in partnership with Human Resources and Skills Development Canada. Although two cohorts of youth were surveyed in the YITS project, this paper uses data from the younger cohort (YITS-A). The youth were born in 1984, were surveyed first in 2000, and again every two years. Four cycles of data, up to 2006, were available for use in this paper.

The original sample of 29,687 students was drawn from a two-stage sampling frame. Schools were sampled first from a list compiled by provincial Ministries and Departments. Sampling of schools occurred within the strata of province, age-15 enrollment size, linguistic group, public vs. private funding sources, and urban vs. rural settings. Schools were excluded from the sample if fewer than 3 students were present or likely to respond to the survey. Schools for children with severe learning disabilities, schools for blind and deaf students and schools on First Nations reserves were also excluded. In the second stage, students were sampled within the 1,187 schools. The sample size within each school was chosen to facilitate school-level analysis. Because some provinces and linguistic groups were over-sampled, the within-school sampling rate ranged from less than 10 percent to a census of the 15 year-olds.

The YITS included a literacy test and a parental survey. The literacy test was administered through the Programme for International Student Assessment (PISA). PISA was an effort, co-ordinated by the Organization for Economic Co-operation and Development (OECD), to generate internationally coherent measures of literacy. The sample used in this paper is drawn from the 'reading cohort'. The YITS project also includes science and math skills tests. Reading scores are used in the paper because the sample is twice as large as the math or science tests. All the students wrote the reading test, then half were randomly

chosen to write the science test while the remaining half wrote the math test.

In the first cycle, a survey was completed by the parent or guardian who identified him or herself as “most knowledgeable” about the child. The responding parent is not necessarily a birth or adoptive parent even when there is a birth or adoptive parent in the household. The responding parent provided data about their education, work, and income.

The base sample is 15,034, which represents roughly 51 per cent of the original sample. The largest sample exclusion comes from restricting the sample to those youth who responded to all four waves of the survey and whose parent completed the parental survey in the first cycle.¹ Table A.1 shows a detailed accounting of the sample exclusions. Youth who board at school or commute farther than 45 minutes by car or public transport are excluded. Specifically, students who responded ‘I live in a school residence’ to the question ‘How do you most often travel to school?’ are excluded from the sample. Students are excluded if they responded to the same question with ‘school bus’, ‘public transit (for example, city bus, subway, or commuter train)’ or ‘someone drives me or I drive myself’ and they responded with more than 45 minutes to the question ‘How long does it usually take you to travel to school (one way)?’ Some cases are also lost because of missing covariates or because data for their neighbourhood was not available in the Census public use files. The implications of the sample exclusions are discussed in this section, following the definition of the variables.

All of the estimates in the paper are weighted using weights provided by Statistics Canada that account for over-sampling, non-response to the parental survey, and longitudinal attrition. The weights are based on the probability a school is selected and the probability a student within each school is selected for the sample. Further information on the construction of the weights is available in the YITS user guide (?).

¹If a youth did not respond in one cycle they were not contacted in the subsequent cycles.

A.1 Dependent Variable

The outcome of interest is university participation and is measured when the youth are age 21. Survey respondents who reported ever attending a university prior to December 2005 are defined as university participants. The university participation rate in the sample is roughly 42 per cent.

Because some individuals may attend university later in their life, this measure will underestimate participation for this cohort. The extent of underestimation should not be severe. Most Canadians who attend university first enroll directly from high school. A survey of students from 26 Canadian Universities suggests that almost 90 per cent of first year undergraduates are younger than 20 years old (Canadian Undergraduate Survey Consortium 2001).

A.2 Control Variables

All of the control variables used in this paper are measured when the youth are age 15. Sample means and proportions of all the variables are reported in Table A.2 for the full sample and separately by university participation.

Parent's education

Measures of parents' education are derived from data provided by the responding parent in the parent questionnaire. Parents were asked about their own and their spouses' educational attainment. The levels of parental education are collected into five categories according to the highest level of education in the family. These categories are both parents have less than high school, at least one parent has a high school diploma, at least one parent has a postsecondary education (PSE) below the Bachelors level, one parent has a Bachelors degree or higher and both parents have a Bachelors degree. A separate category is included when both parents have a Bachelors degree because the probability of university partici-

pation is significantly different for this group. Single parents with a bachelors degree are included in the fourth category with two parent families where one parent has a Bachelors degree and the other parent obtained less education. Because there are relatively few single parents with a Bachelors degree, the results do not vary substantially when single parents with bachelors degrees are included in the last group.

Adult Equivalent Family Income

Family income combines the respondent's and his or her spouse's before-tax income. The information was collected from the responding parent. The measure is calculated by Statistics Canada and may include imputed values. Total income is derived from a sum of the nine income sources collected during the parent interview. They are: (1) Wages and Salaries before deductions, including bonuses, tips and commissions; (2) Net Income from Farm and Non-farm Self-employment (after expenses and before taxes); (3) Employment Insurance benefits (before deductions); (4) Canada Child Tax Benefits and provincial child tax benefits or credits (including Quebec Family Allowance); (5) Social Assistance (welfare) and Provincial Income Supplements; (6) Support payments received, such as spousal and child support; (7) Other Government Sources, such as Canada or Quebec Pension Plan Benefits, Old Age Security Pension, or Workers' Compensation Benefits; (8) Goods and Services Tax Credit / Harmonized Tax Credit received in 1999; and (9) Other Non-Government sources. Income is then divided by the square root of the number of people living in the household to provide a measure of income per equivalent adult. Because income is unlikely to be linearly related to university participation, quartiles of the adult equivalent family income are used in the data. The quartiles were calculated prior to any sample exclusions, thus the proportions within the quartiles in the data are not .25.

Socio-demographic variables

The socio-demographic variables capture family structure, parental labour force status,

rural residence, mobility, Aboriginal and immigrant status.

The family structure categories are constructed using the roster of family members provided by the responding parent. The reference category is two-parent families with a birth mother and a birth father, or an adoptive mother and an adoptive father. Lone parent families might be headed by only the birth mother, or an adult who is not a birth parent of the child.² Other two parent families include combinations of birth and adoptive parents, foster and step parents, and same gendered parents.³

Parental labour force status is measured using data reported by the responding parent. The parent is asked ‘What do you consider to be your current main activity?’ and ‘What is your spouse or partner’s current main activity?’. The work status variables are coded one if the response was either ‘Working at a job or a business (includes self-employed)’ or ‘Working at a job or a business and caring for family (includes self-employed)’. If the responding parent did not have a spouse the corresponding variable was coded to zero.

The responding parent also indicated whether the child’s residence when age 15 was in a rural area. A rural area is defined in Statistics Canada’s Statistical Area Classification as population density less than 400 people per square kilometer. Mobility is measured using the parent’s response to the question ‘Since child’s birth, how often has he/she moved homes?’. Parents are prompted not to include moves between two parental homes in the case of split custody.

Immigrant status is also reported by the parent. Children are coded as immigrant if they

²Specifically this category includes family compositions of adoptive/step/foster mother and no father; adoptive/step/foster father and no mother; single guardian (other related or other unrelated); biological parent of unknown gender; adoptive / step / foster parent of unknown gender.

³Specifically this category includes family compositions of biological mother and stepfather; biological father and stepmother; adoptive mother and adoptive father; biological mother and adoptive father; biological father and adoptive mother; biological mother and foster father; biological father and foster mother; adoptive mother and stepfather; adoptive father and stepmother; stepmother and stepfather; foster mother and foster father; two other guardians (may include same sex partner); biological parent with spouse/partner (may include same sex partner); adoptive / step / foster parent with spouse/partner (may include same sex partner).

were born in any country other than Canada. Children are considered second generation if they were born in Canada and at least one of their parents were born outside of Canada. Parents are asked ‘What is the language that this person (child) first learned at home in childhood and still understands?’ If they responded with a language other than English or French then the other language variable is coded as one.

Aboriginal status is reported by the parents. The interviewer asked ‘Canadians come from many cultural or racial backgrounds. I’m going to read you a list. Is this person ...’ If a parent chose ‘Aboriginal, that is North American Indian, Métis and Inuit’ then the child is coded as Aboriginal.

PISA Reading Scores

In the first wave of the survey, respondents completed a PISA reading test. As a part of the effort to make PISA scores internationally comparable five ‘plausible value’ scores are produced. The ‘plausible value’ is a way of estimating a scalar skill measure from the item responses on the PISA reading test. Further information about the plausible values is available in the PISA technical manual (?). The average across the five plausible values was used to construct quartiles of the reading scores. The quartiles were generated before any sample exclusions were made. As a consequence, the fraction of the sample within each quartile is not one quarter.

Parents’ Hopes for Children’s Education

The responding parent is asked to indicate the ‘highest’ level of education they ‘hope’ their child will obtain. The responses were coded into four categories, high school or less, PSE below a BA, which includes college diplomas or trade certificates, Bachelors degree or above, and any level above high school.

Family Behaviour

A variable indicating whether families had prepared financially for their children’s edu-

cation is included in the analysis. The variable takes on the value one if parents responded positively to the question, ‘Have you (or your partner) done anything specific to ensure that child will have money for further education after high school?’ The sibling drop-out variable is created using data from the parental survey. Parents were asked if any of their child’s brothers or sisters had dropped out of school and were prompted to include step, half and adopted siblings and siblings the child is not currently living with. A dummy variable is also included if the parents indicated that their child has no brothers or sisters.

A.3 Neighbourhood BA Share

This paper uses the fraction of adults who have obtained a Bachelors degree to measure neighbourhood quality. Neighbourhood data are obtained from public use files of the 2001 Canadian Census Profiles. The youth’s neighbourhoods are defined by their home residences measured when they are age 15 and are geographically defined by the Enumeration Area (EA). The EA is the smallest geographic unit used by Statistics Canada and is roughly one to four blocks in size.⁴

The EA unit was dropped by Statistics Canada between the 1996 and 2001 Census’ in favour of the Dissemination Area (DA), which while sometimes smaller than the EA is roughly similar. The decision to switch between the EA and DA was motivated by new technology. The EA was originally designed, not for analytical purposes, but as the area for which a Census enumerator could collect data in a single day. The introduction of new digital cartographic files made it possible to separate enumeration areas meant for data collection from dissemination areas meant for data dissemination.

While EA locations are recorded in the YITS data, the 2001 Census public use files are available only for DAs. The EA locations in the YITS were matched to the Census data by

⁴Because the boundaries of EAs include any adjacent or surrounded bodies of water, the measures of land area are not calculated by Statistics Canada and are consequently not available.

adding together the DAs that overlapped within an EA. In other words, if the youth's home EA matched to more than one DA, her neighbourhood was defined as the total area covered by all the matched DAs.

The mean BA share weighted by the number of students in the data is .159 with a standard deviation of .116. Because DAs are small geographies and the education questions are on the long form of the Census (20 per cent sample), the sample sizes used to estimate the BA share in a neighbourhood can be, in some cases, fairly small. The mean sample size across the neighbourhoods in the YITS data is 196. To gauge the extent to which this might affect the estimates in this paper a rough estimate of the sampling variance was calculated as $(1 - p) * p/N$, where p is the mean neighbourhood BA share and N is the mean sample size used to estimate the BA share. The sampling deviation is .026 which suggests that about 23 per cent of the neighbourhood variation can be attributed to measurement error.

Identification in this paper relies on neighbourhood variation *within* schools. There are 1013 schools in the sample; some have very small sample sizes while others have samples over 100 students. The mode sample size is in the order of 25 students. The median number of neighbourhoods within a school is 9. In the lowest quartile, schools have between 2 and 7 neighbourhoods. Schools with one neighbourhood are excluded because there is no variation.

Variance in neighbourhood BA share is larger between schools than within schools. The between school standard deviation is .090 and the within school standard deviation is .073. In the schools with the least variation in neighbourhood BA share, the standard deviation is .04. At the median the standard deviation is .057 and at the top quartile the standard deviation is .089. Schools explain 62 per cent of the variation in neighbourhood BA share.⁵

⁵This estimate comes from the R^2 from a regression of BA share on the school dummies.

A.4 Sample selection bias

The fact that only half of the survey participants are included in the final sample is potentially cause for concern for two reasons. First, the sample may no longer provide a reasonable representation of the Canadian population. The weights provided by Statistics Canada should alleviate this problem by scaling the results to account for non-response. The second issue is of greater consequence and concerns whether the sample exclusions introduce a systematic selection bias. Because they are not constructed using an instrument, or a variable which predicts sample inclusion but not university participation, the weights are generally not sufficient to purge any selection bias that may be present.

Table A.3 compares the control variable means within the sample to the variable means within the survey participants that were excluded from the sample. The size of the excluded sample differs across the variables reflecting the sources of the data and the various reasons cases are dropped from the analysis sample. For example, fewer observations are available for the excluded sample mean in parental education because these variables are constructed using parental report data. In contrast, the PISA scores are not generated from parental report data. Comparing the variable means among those included and excluded from the sample provides some evidence about the nature of any bias introduced by sample selection.

There is virtually no difference in the average quality of the neighbourhoods. However, judging by the size of the differences it appears that the excluded sample members have a lower socio-economic family background. The most striking difference is in the PISA scores. The included sample members have substantially higher reading scores. Among those excluded from the sample only 22 per cent are in the top quartile of the PISA distribution, while nearly 30 per cent of the included sample scored are within the top quartile. It is also possible to reject the null hypothesis that the average scores are different among the included and excluded sample members.

Table A.1: Sample Exclusions

	Missing Count	Remaining Sample	Percent of Total Sample
Full Sample	0	29,687	100.0
Parental non-response	3,624	26,063	87.8
Cycle 4 non-response	8,689	17,374	58.5
Live in a residence	50	17,324	58.4
Commute more than 45 minutes	254	17,070	57.5
Unmatched in the Census data	500	16,570	55.8
Missing covariates	1,096	15,474	52.1
Insufficient variation within the schools	440	15,034	50.6

Exclusions are made sequentially such that the missing counts are conditional on the previous exclusions.

Because the included sample has on average higher observed skills, one might suspect that these individuals have higher unobserved skills as well. If there is correlation between the unobserved factor and neighbourhood quality, then the estimated neighbourhood effects will not be consistent. Naturally, it is not possible to test for a correlation with an unobserved factor, however, as Table 3 in the main body of the paper indicates, children's PISA scores are not correlated with neighbourhood quality after controlling for schools and family background. Because PISA scores do not predict neighbourhood quality, there is less reason to be concerned that skills are on average higher within the included sample.

Table A.2: Sample Means

	Full Sample	University Participants	University Non-Participants
University participation	0.420		
Neighbourhood BA Share	0.159	0.189	0.137
Female	0.500	0.593	0.432
Parents' highest educational attainment			
Less than high school	0.066	0.024	0.096
High school	0.221	0.146	0.276
PSE below BA	0.439	0.393	0.472
One parent has a BA	0.179	0.259	0.120
Both parents have a BA	0.096	0.179	0.036
Family income quartiles			
Quartile 1	0.191	0.147	0.223
Quartile 2	0.219	0.178	0.249
Quartile 3	0.277	0.276	0.279
Quartile 4	0.312	0.400	0.249
PISA reading quartiles			
Quartile 1	0.195	0.054	0.297
Quartile 2	0.235	0.146	0.301
Quartile 3	0.273	0.296	0.255
Quartile 4	0.297	0.505	0.147
Parental aspirations for child			
High school or less	0.024	0.003	0.040
PSE below BA	0.263	0.089	0.390
BA or above	0.641	0.853	0.488
Any level above high school	0.071	0.056	0.082
Family background			
Aboriginal status	0.025	0.017	0.031
Immigrant	0.078	0.108	0.057
Second generation	0.187	0.232	0.155
Non-official language spoken at home	0.110	0.154	0.077
Rural residence	0.259	0.195	0.306
Number of household moves	2.050	1.888	2.168
Mother works	0.763	0.775	0.755
Father works	0.815	0.836	0.801
Family structure			
Two parent family	0.731	0.794	0.685
Lone parent family	0.158	0.131	0.177
Other two parent families	0.111	0.075	0.137
Family behaviour			
Parents' prepared financially for education	0.671	0.755	0.610
Sibling is high school dropout	0.078	0.042	0.105
Only child	0.054	0.054	0.054
Sample size	15,034	6,314	8,720

Table A.3: Means for Included and Excluded Sample Members

	Included Sample	Excluded Sample	Excluded Sample Size
Neighbourhood BA Share	0.159	0.161	9,732
Female	0.500	0.494	13,721
Parents' highest educational attainment			
Less than high school	0.066	0.097	10,133
High school	0.221	0.241	10,133
PSE below BA	0.439	0.411	10,133
One parent has a BA	0.179	0.165	10,133
Both parents have a BA	0.096	0.087	10,133
Family income quartiles			
Quartile 1	0.191	0.261	10,536
Quartile 2	0.219	0.230	10,536
Quartile 3	0.277	0.240	10,536
Quartile 4	0.312	0.269	10,536
PISA reading quartiles			
Quartile 1	0.195	0.273	14,031
Quartile 2	0.235	0.256	14,031
Quartile 3	0.273	0.247	14,031
Quartile 4	0.297	0.224	14,031
Parental aspirations for child			
High school or Less	0.024	0.045	10,450
PSE below BA	0.263	0.276	10,450
BA or above	0.641	0.607	10,450
Any level above high school	0.071	0.072	10,450
Family background			
Aboriginal status	0.025	0.041	10,462
Immigrant	0.078	0.114	10,522
Second generation	0.187	0.179	10,524
Non-official language spoken at home	0.110	0.134	10,512
Rural residence	0.259	0.244	10,090
Number of household moves	2.050	2.460	10,285
Mother works	0.763	0.732	10,106
Father works	0.815	0.775	10,054
Family structure			
Two parent families	0.731	0.661	10,485
Lone parent family	0.158	0.191	10,485
Other two parent families	0.111	0.148	10,485
Family behaviour			
Parents prepared financially for education	0.671	0.616	10,477
Sibling is high school dropout	0.078	0.107	10,486
Only child	0.054	0.060	10,486
Included sample size	15,474		

B Immigrant and Second Generation Source Country

Several studies have shown that Canadian children whose parents were born in other countries have on average higher levels of education. This ‘second generation’ effect has also been found to vary substantially across different source countries (??). The main analysis in the paper includes a dummy variable indicating whether the child first spoke a non-official language. This variable captures country of origin only in a limited sense.

Table B.4 shows marginal effects estimated in a model that includes controls for immigrant and second generation status broken down by the region of origin. Children who are born in Asia, which includes Pacific and subcontinental Asia but not Russia and countries of the former U.S.S.R., are much more likely to attend university than non-Aboriginal Canadian born children.⁶ Children born in other regions of the world are less likely than Canadian born children to attend university but these differences are not statistically significant because the low frequency of immigrants in the data leads to imprecise estimates.

Second generation children whose father was born in Africa, Asia or Europe are more likely to attend university than children whose father was born in Canada. Children whose father was born in Europe are 9 percentage points more likely to attend university relative to the children of Canadian born fathers. The second generation effect is much larger for those whose father was born in Africa or Asia. These children are respectively 24.3 and 16.5 percentage points more likely to attend university. The point estimate for African born fathers is much larger than what previous studies have found however it should be noted that the estimate is not particularly precise.

When the region of origin is included in the model rather than controlling for immigrant and second generation status the estimated neighbourhood effect is virtually unchanged. In

⁶Because the estimates in Table B.4 control for Aboriginal status, the reference category is non-Aboriginal Canadian born children whose father was also born in Canada.

Table B.4: Region of Origin for Immigrant and Second Generation Children

Neighbourhood BA Share	0.161 (0.063)**
Immigrant source country – Reference Canadian Born	
Africa	-0.083 (0.111)
Asia	0.175 (0.057)***
Middle East	-0.056 (0.107)
Europe	-0.076 (0.055)
U.S., Australia, New Zealand	-0.005 (0.062)
Father's birth country – Reference Canadian Born	
Africa	0.243 (0.077)***
Asia	0.165 (0.034)***
Middle East	0.100 (0.090)
Europe	0.091 (0.033)***
U.S., Australia, New Zealand	0.014 (0.029)
Missing data	0.180 (0.094)*
Sample size	15,474

Marginal effects estimated in a Probit model. Dependent variable = 1 if child ever attended a university
 Specification includes the full set of controls: parental education, family income, gender, reading scores, parental aspirations, family structure, Aboriginal status, rural residence, residential mobility, parental labour force status, school fixed effects.
 Asia includes pacific and subcontinental Asia but not Russia and former U.S.S.R. nations. These countries are included in Europe.
 Standard errors clustered by school presented in parenthesis
 Stars indicate statistical significance: *** .01, ** .05, * .1

this specification, the neighbourhood effect is .161 compared to .163 in Table 2 where the status dummies are used.

C Additional Marginal Effects for Different Socio-Economic Types

In the main body of paper, marginal neighbourhood effects were estimated for different socio-economic types within each reading quartile. In Table C.5, the PISA quartiles are held constant and the marginal effects for each type are estimated across the quartiles of family income.

Looking down the columns of Table C.5 reveals that the predicted probability of attending university and the marginal effect of neighbourhoods do not vary significantly across income quartiles. Marginal effects are still largest for the children of parents with high school diplomas. The estimated neighbourhood effects for children whose parents have a PSE diploma below a Bachelors degree are fairly large but only marginally significant.

In Table C.6 income quartiles are held constant within each SES type and instead marginal effects are estimated for low and high parental aspirations. For the high SES type, neighbourhoods have no effect on university participation independent of the parents' educational aspirations. The marginal effects are large but statistically insignificant for the two middle groups whether their parents have high or low educational aspirations. For the lower socio-economic types, while there is some evidence that neighbourhoods have a larger effect among children whose parents have high aspirations, the standard errors are large because very few children have low skills, low family income, low parental education and have parents with high aspirations.

Table C.5: Marginal Effects Across the Distributions of Family Income and Family Background

	SES Type			
	Low	Medium High School	Medium PSE	High
	1	2	3	4
Family income quartile	1	1	1	1
Predicted value	0.027	0.120	0.312	0.948
Marginal effect	-0.056 (0.146)	0.319 (0.129)**	0.338 (0.174)*	-0.009 (0.085)
Sample size	42	118	135	26
Family income quartile	2	2	2	2
Predicted value	0.029	0.143	0.285	0.914
Marginal effect	-0.082 (0.168)	0.218 (0.118)*	0.142 (0.141)	-0.103 (0.111)
Sample size	23	120	161	61
Family income quartile	3 & 4	3	3	3
Predicted value	0.014	0.163	0.308	0.908
Marginal effect	-0.038 (0.083)	0.307 (0.133)**	0.242 (0.146)*	-0.063 (0.106)
Sample size	12	93	185	166
Family income quartile		4	4	4
Predicted value		0.165	0.323	0.930
Marginal effect		0.319 (0.136)**	0.225 (0.142)	-0.060 (0.084)
Sample size		67	128	449

Marginal effects estimated using coefficients from model reported in Table 5.

SES types are defined as follows:

Low—parents' education is below high school, bottom reading quartile, parents hope child achieves high school or less
 Medium High School—highest parental education is high school, second reading quartile, parents hope child achieves college or above high school

Medium PSE—parents' highest education is PSE below BA, third reading quartile, parents hope child achieves college or above high school

High—both parents have a BA, top reading quartile, parents hope child achieves a BA

Standard errors clustered by school presented in parenthesis

Stars indicate statistical significance: *** .01, ** .05, * .1

Table C.6: Marginal Effects by Parental Aspirations and Family Background

	SES Type			
	Low	Medium High School	Medium PSE	High
	1	PISA Reading Quartile		4
		2	3	
	Parent hopes child obtains less than BA			
Predicted value	0.031	0.137	0.305	0.828
Marginal effect	0.098 (0.102)	0.155 (0.155)	0.225 (0.156)	-0.026 (0.167)
Sample size	172	136	189	25
	Parent hopes child obtains less than BA			
Predicted value	0.144	0.331	0.568	0.930
Marginal effect	0.359 (0.192)*	0.251 (0.181)	0.127 (0.165)	-0.060 (0.084)
Sample size	79	140	414	449

Marginal effects estimated using coefficients from model reported in Table 5.

SES types are defined as follows:

Low—parents' education is below high school, bottom reading quartile, bottom family income quartile

Medium High School—highest parental education is high school, second reading quartile, second family income quartile

Medium PSE—parents' highest education is PSE below BA, third reading quartile, third family income quartile

High—both parents have a BA, top reading quartile, top family income quartile

Standard errors clustered by school presented in parenthesis

Stars indicate statistical significance: *** .01, ** .05, * .1

References